Topic: **Introduction to Global Positioning Systems (GPS)**
Audience: Afghanistan Geological Survey (AGS) Geophysics Team
Afghanistan Geodesy and Cartography Head Office (AGCHO)♦
Ministry of Mines & Industries (MMI) – Oil and Gas Exploration Office*
Institute of Jowzjan Province – Faculty of Education♠
Participants: 72
Duration: 4 hours
Delivered: Four times: *♠March 29&30, ♦April 13, and June 19-20, 2006
Instructor: Charles Lindsay (USGS)

Summary:

This course presented participants with an introduction to the applications, concepts, and technologies associated with Global Positioning Systems (GPS). The general applications of GPS and its more specific application to the collection of modern geophysical data were discussed. The following concepts of GPS were explained:

1) satellite trilateration
2) satellite ranging
3) accurate timing, atomic clocks, GPS time, and UTC
4) satellite positioning
5) sources of error

Different types of GPS receivers and antennas were discussed. The importance of antenna location and the concept of dilution of precision (DOP) and its effect on the accuracy of positional data were emphasized. The concept of differential GPS was also introduced.

Participants:

AGS:
Mohammad Alam, Said Ashan, Faizulla, Sardar Hussain, Nassima Jan, Abdul Hakim Kohistany, Abdul Rahman Momand, Ghulam Rahman, Ghulam Sakhi, Mohammad Zia

AGCHO♦:
Mohammad Ahmad Daoud, Faizulla Ahmad Hedayat, Saleh Mohammad Panah, Mohammad Shuaib Partaw, Nazir Mohammad Rafiq, Zoorlha Yaqeen, Abdul Raouf Yari

MMI*:
Abdul Salam Muty

Institute of Jowzjan Province♠ (University of Jowzjan Province):
53 University students